Serial No.: 10/525,058

Filed: September 6, 2005

Page : 2 of 11

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) An organic photovoltaic component, comprising:

a substrate,

a first electrode-supported by the substrate,

an organic semiconductor layer-supported by the first electrode, the first electrode being between the substrate and the organic semiconductor layer, and

a second electrode-supported by the organic semiconductor layer, the organic semiconductor layer being between the first and second electrodes.

wherein the substrate has a surface that is structured, and the organic semiconductor layer <u>first electrode</u> has a planar surface.

- 2. (Previously Presented) The organic photovoltaic component as defined in claim 1, wherein the substrate is a flexible sheet that is structured.
- 3. (Currently Amended) The organic photovoltaic component of claim 1, wherein the substrate and/or an further comprising additional layer above or below the semiconductor layer is between the substrate and the first electrode, the additional layer having a surface that is structured.
- 4. (Currently Amended) A method, comprising:

providing an organic photovoltaic cell, comprising:

a substrate having a structured surface;

a first electrode;

an organic semiconductor layer, the first electrode being between the substrate and the organic semiconductor layer; and

a second electrode, the organic semiconductor layer being between the first and second electrodes.

Serial No.: 10/525,058

Filed: September 6, 2005

Page : 3 of 11

supporting a semiconductor layer with the structured surface of the substrate while preserving the structured surface of the substrate,

wherein the semiconductor layer has a planar surface.

- 5. (Cancelled).
- 6. (Previously Presented) The method as defined in claim 4, further comprising disposing an additional layer on the structured surface of the substrate so that the additional layer has a structured surface that supports the semiconductor layer.
- 7. (Previously Presented) A photovoltaic cell, comprising:
 - a substrate having a structured surface;
 - a first electrode supported by the structured surface of the substrate;
 - a second electrode, the first electrode being between the substrate and the second electrode;

and

an organic semiconductor between the first and second electrodes, wherein a surface of the organic semiconductor first electrode is planar.

- 8. (Previously Presented) The photovoltaic cell of claim 7, wherein the substrate is flexible.
- 9. (Currently Amended) The photovoltaic cell of claim 7, wherein the first electrode is structured a surface of the organic semiconductor is planar.
- 10. (Previously Presented) The photovoltaic cell of claim 9, wherein the first electrode is disposed on the substrate.
- 11. (Previously Presented) The photovoltaic cell of claim 9, wherein the first electrode is a cathode.
- 12. (Previously Presented) The photovoltaic cell of claim 7, further comprising a planarized layer between the substrate and the first electrode.

Serial No.: 10/525,058

Filed: September 6, 2005

Page : 4 of 11

13. (Currently Amended) The photovoltaic cell of claim 12, wherein the first electrode is disposed on the a planarized surface of the planarized layer.

- 14. (Previously Presented) The photovoltaic cell of claim 7, further comprising a planarized layer between the organic semiconductor and the first electrode.
- 15. (Previously Presented) The photovoltaic cell of claim 14, wherein the first electrode is disposed on the substrate.
- 16. (Previously Presented) A photovoltaic cell, comprising:
 - a substrate;
 - a first electrode supported by the substrate;
- a first layer-supported by the first electrode, the first layer being between the substrate and the first electrode;
- a second layer-supported by the first layer, the second layer being between the substrate and the first electrode;
 - a second electrode; and
 - an organic semiconductor between the first and second electrodes,
- wherein the first electrode is structured, a surface of the first layer is structured, a surface of the second layer is planar, and a surface of the organic semiconductor is planar.
- 17. (Previously Presented) The photovoltaic cell of claim 16, wherein the substrate is not structured.
- 18-19. (Cancelled).
- 20. (Previously Presented) The photovoltaic cell of claim 16, wherein the substrate is flexible.

Serial No.: 10/525,058

Filed: September 6, 2005

Page : 5 of 11

21. (Currently Amended) The photovoltaic cell of claim 1, wherein the first electrode substrate has a structured surface.

- 22. (Previously Presented) The photovoltaic cell of claim 7, wherein the first electrode has a structured surface.
- 23. (Currently Amended) A photovoltaic cell, comprising:
 - a substrate having a surface;
 - a support layer having a surface;
 - a first electrode, the support layer being between the substrate and the first electrode;
 - a second electrode;
 - an organic semiconductor between the first and second electrodes,

wherein:

the first electrode is between the support layer and the organic semiconductor;

a surface of the organic semiconductor is planar;

at least one surface that is structured; and

the at least one surface being <u>is</u> selected from the group consisting of the surface of the substrate and the surface of the support layer.

- 24. (Previously Presented) The photovoltaic cell of claim 23, wherein the surface of the support layer is structured.
- 25. (Previously Presented) The photovoltaic cell of claim 24, wherein the surface of the substrate is structured.
- 26. (Previously Presented) The photovoltaic cell of claim 24, wherein the surface of the substrate is planar.

Serial No.: 10/525,058

Filed: September 6, 2005

Page : 6 of 11

27. (Currently Amended) The photovoltaic cell of claim 23, wherein the <u>surface of the</u> support layer has a is planar surface.

- 28. (New) The organic photovoltaic component of claim 1, wherein the structured surface of the substrate has a periodic structure.
- 29. (New) The method of claim 4, wherein the substrate is a flexible sheet that is structured.
- 30. (New) The method of claim 4, wherein the organic photovoltaic cell further comprises an additional layer between the substrate and the first electrode, and the additional layer has a surface that is structured.
- 31. (New) The method of claim 4, wherein the structured surface of the substrate has a periodic structure.
- 32. (New) The photovoltaic cell of claim 7, wherein the structured surface of the substrate has a periodic structure.
- 33. (New) The photovoltaic cell of claim 25, wherein the structured surface of the substrate has a periodic structure.
- 34. (New) The photovoltaic cell of claim 33, wherein the periodic structure of the substrate is configured to impart light trapping during use of the organic photovoltaic component.
- 35. (New) The photovoltaic cell of claim 25, wherein the structured surface of the support layer has a periodic structure.
- 36. (New) An organic photovoltaic component, comprising:

Serial No.: 10/525,058

Filed: September 6, 2005

Page : 7 of 11

a substrate,

a first electrode,

an organic semiconductor layer, the first electrode being between the substrate and the organic semiconductor layer, and

a second electrode, the organic semiconductor layer being between the first and second electrodes,

wherein the substrate has a surface with a periodic structure.

- 37. (New) The organic photovoltaic component of claim 36, wherein the periodic structure of the substrate is configured to impart light trapping during use of the organic photovoltaic component.
- 38. (New) A method, comprising:

providing an organic photovoltaic cell, comprising:

a substrate having a structured surface;

a first electrode;

an organic semiconductor layer, the first electrode being between the substrate and the organic semiconductor layer; and

a second electrode, the organic semiconductor layer being between the first and second electrodes.

- 39. (New) The method of claim 38, wherein the periodic structure of the substrate is configured to impart light trapping during use of the organic photovoltaic component.
- 40. (New) A photovoltaic cell, comprising:
 - a substrate having a surface with a periodic structure;
 - a first electrode supported by the structured surface of the substrate;
 - a second electrode;
 - an organic semiconductor between the first and second electrodes.
- 41. (New) The photovoltaic cell of claim 40, wherein the periodic structure of the substrate is configured to impart light trapping during use of the organic photovoltaic component.